

IN THE CLAIMS

Please replace the current claims with the following complete set of claims, showing the amendments made thereto:

1. (Currently Amended) A circuit for limiting the in-rush current of a radio device coupled to a low-power external power source, comprising:

a switch circuit in series between said power source and said radio device, said switch having an “off” state with a first [high] impedance and an “on” state with a second [low] impedance lower than said first impedance; and

a time-delay shorting circuit coupled to said switch circuit, said time-delay shorting circuit having a time constant;

wherein before said time constant has elapsed, said switch circuit is in said first [high] impedance “off” state for limiting said in-rush current to said radio device and wherein after said time constant has elapsed, said switch circuit is in said second [low] impedance “on” state so that said radio device is powered by said external power source; and

wherein said switch circuit includes a field effect transistor having an “on” state resistance and being in parallel with an in-rush current limiting resistor having a resistance in the range of 5 to 10 ohms, wherein said resistance of said in-rush current limiting resistor is substantially said first impedance of said switch circuit and said field effect transistor on state resistance is substantially said second impedance of said switch circuit.

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3. (Currently Amended) The circuit of claim 1 [2], wherein said “on” state resistance of said field effect transistor is in the range of 0.05 to 0.2 ohms.
4. The circuit of claim 3, wherein said “on” state resistance of said field effect transistor is approximately 0.1 ohms.
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6. (Currently Amended) The circuit of claim 1 [5], wherein said resistance of said in-rush current limiting resistor is approximately 5 ohms.
7. (Currently Amended) The circuit of claim 1 [2], wherein said “on” state resistance of said field effect transistor is approximately 0.1 ohms and said resistance of said in-rush current limiting resistor is approximately 5 ohms.
8. The circuit of claim 1, wherein said time constant is in the range of 2 to 3 milliseconds.
9. (Currently Amended) The circuit of claim 1 [2], wherein said time-delay circuit includes a capacitor and a resistor, said capacitor having a first end coupled to said external power supply and a second end coupled to said field effect transistor and wherein said capacitor has a capacitance and said resistor has a resistance so that said time constant is in the range of 2 to 3 milliseconds.
10. The circuit of claim 1, wherein said radio device is provided in a compact flash form factor and said low-power external power source is provided in a handheld computing device and wherein said radio device is coupled to said handheld computing device.
11. (Currently Amended) The circuit of claim 1, wherein said circuit for limiting is in said radio device.

12. (Currently Amended) The circuit of claim 1, wherein said circuit for limiting is in said power source.

13. (Currently Amended) A method for limiting the in-rush current of a radio device coupled to a low-power external power source, comprising steps of:

inserting a switch circuit in series between said power source and said radio device, said switch having an “off” state with a first [high] impedance and an “on” state with a second [low] impedance lower than said first impedance; and

coupling a time-delay shorting circuit to said switch circuit, said time-delay shorting circuit having a time constant;

switching to said first [high] impedance “off” state for limiting said in-rush current to said radio device before said time constant has elapsed; and

switching to said second [low] impedance “on” state after said time constant has elapsed so that said radio device is powered by said external power source;

wherein said switch circuit includes a field effect transistor having an “on” state resistance in the range of 0.05 to 0.2 ohms, said field effect transistor being in parallel with a in-rush current limiting resistor having a resistance in the range of 5 to 10 ohms, wherein said resistance of said in-rush current limiting resistor is substantially said first impedance and said “on” state resistance of said field effect transistor is substantially said first impedance.

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15. (Currently Amended) The method of claim 13 [14], wherein said “on” state resistance of said field effect transistor is approximately 0.1 ohms and said resistance of said in-rush current limiting resistor is approximately 5 ohms.

16. The method of claim 13, wherein said time constant is in the range of 2 to 3 milliseconds.
17. (Currently Amended) The method of claim 13 [14], wherein said time-delay circuit includes a capacitor and a resistor, said capacitor having a first end coupled to said external power supply and a second end coupled to said field effect transistor and wherein said capacitor has a capacitance and said resistor has a resistance so that said time constant is in the range of 2 to 3 milliseconds.
18. The method of claim 13, wherein said radio device is provided in a compact flash form factor and said low-power external power source is provided in a handheld computing device and wherein said radio device is coupled to said handheld computing device.
19. The method of claim 13, further comprising the step of”
placing said switch circuit and said time-delay shorting circuit in said radio device.
20. The method of claim 13, further comprising the step of”
placing said switch circuit and said time-delay shorting circuit in said power supply.
21. (Currently Amended) A radio device provided in a compact flash form factor, said radio device being powered by a low-power external power source, comprising:
radio electronics having an in-rush current demand;
a switch circuit in series between said power source and said radio device, said switch circuit having an “off” state with a first [high] impedance and an “on” state with a second [low] impedance lower than the first impedance; and

a time-delay shorting circuit coupled to said switch circuit, said time-delay shorting circuit having a time constant;

wherein before said time constant has elapsed, said switch circuit is in said first [high] impedance “off” state for limiting said in-rush current to said radio device and wherein after said time constant has elapsed, said switch circuit is in said second [low] impedance “on” state so that said radio device is powered by said external power source; and

wherein said switch circuit includes a field effect transistor having an “on” state resistance in the range of 0.05 to 0.2 ohms, said field effect transistor being in parallel with a in-rush current limiting resistor having a resistance in the range of 5 to 10 ohms, wherein said high impedance is substantially said resistance of said in-rush current limiting resistor and said low impedance is substantially said “on” state resistance of said field effect transistor.

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23. (Currently Amended) The radio device of claim 21 [22], wherein said “on” state resistance of said field effect transistor is approximately 0.1 ohms and said resistance of said resistor is approximately 5 ohms.

24. (Currently Amended) The radio device of claim 21 [22], wherein said time-delay circuit includes a capacitor and a resistor, said capacitor having a first end coupled to said external power supply and a second end coupled to said field effect transistor and wherein said capacitor has a capacitance and said resistor has a resistance so that said time constant is in the range of 2 to 3 milliseconds.

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